

REMARKS

Applicant made amendments to claims 1, 2, 6, 9 and 25. Applicant deleted express reference to “guard band” from the claims.

The independent claims are amended so that the voltage control information transmitted by the integrated circuit corresponds to a difference between a minimum operating voltage uniquely determined for the integrated circuit and a predetermined nominal voltage selected for a family of integrated circuits. The operating voltage of the IC is then set based on the voltage control information. The amendments are supported in the specification, particularly at paragraphs [0041]-[45].

The predetermined nominal voltage is akin to a factory setting applied to all integrated circuits. However, as explained in the specification, some ICs may be operable below the factory setting. Reducing the operating voltage when possible lowers power consumption.

35 USC 102/103

Applicant respectfully traverses the Examiner’s rejections. Applicant believes neither Fujioka nor DeLuca, whether or not applied, either singly or in combination discloses, teaches or suggests the inventions of independent claims 1, 9 or 25, as amended.

For example, the primary JP reference (Fujioka) does not determine the difference between a minimum operating voltage uniquely determined for an IC and a predetermined nominal voltage selected for a family of integrated circuits. The JP reference also does not teach or suggest setting the operating voltage of an IC based on the difference.

Instead, the JP reference uses a predetermined minimum voltage value as the operating voltage of an IC if the voltage is determined to be “effective.” Otherwise, the minimum operating voltage is re-determined using a BIST engine. The IC operating voltage is then set to the ‘new’ minimum operating voltage. This way, if the IC cannot function properly at the current minimum operating voltage, it is re-determined and used as the IC operating voltage.

Entry of this Amendment and allowance of claims 1-16, 25 are solicited.

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